

ULTRASONIC DIAGNOSTIC SYSTEM

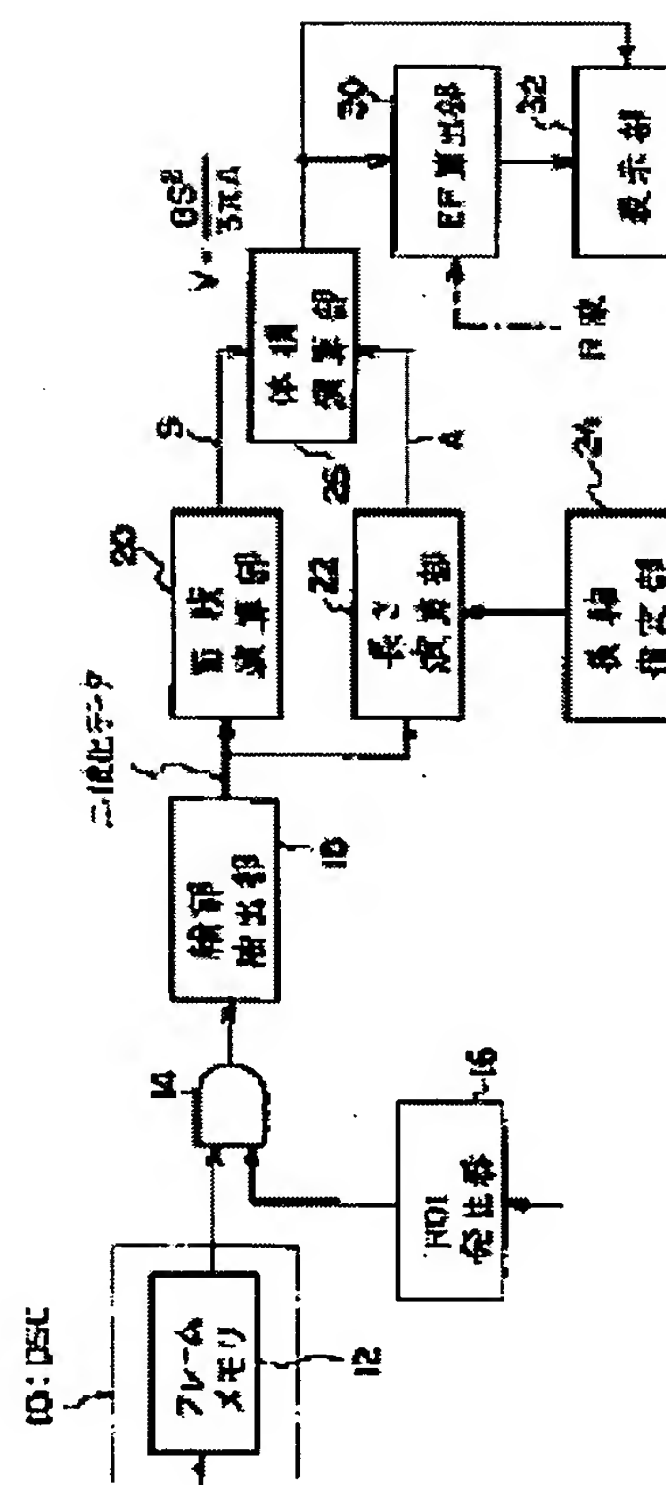
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Inventor: HIROTA KOJI; MURASHITA MASARU
Applicant: ALOKA CO LTD
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Abstract of JP2000210284

PROBLEM TO BE SOLVED: To reduce the volume of calculation and errors as far as possible by processing an ultrasonic image to calculate the heart chamber area from the profile of the heart chamber, elliptically approximating the profile image to calculate the length of one of major and minor axes, and calculating the heart chamber volume from the heart chamber area and the length of one axis.

SOLUTION: An ROI generator 16 generates an ROI to define the periphery of a profile extraction range. A gate circuit 14 extracts only data belonging to the ROI according to the address of the ROI generated by the ROI generator 16. A profile extracting part 18 extracts the profile image of, for instance, the left ventricle using various processes such as filtering, compressing and extending, digitizing, etc. An area calculating part 20 counts pixels, i.e., the number of data, in the profile to calculate the area off the hollow in the left ventricle. A length calculating part 22 calculates the length of the major axis when the profile is elliptically approximated. A volume calculating part 26 calculates the volume according to an equation.



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